

(12) **United States Patent**
Conzemius

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(54) **TOTAL ELBOW ARTHROPLASTY SYSTEM**

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Related U.S. Application Data

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(57) **ABSTRACT**

A total elbow arthroplasty system, incorporating a humeral component, a radial component and a ball component, may be used as a total elbow replacement in the canine, as well as in other species. The implant of the present invention has an isometric humeral component and an isometric radial component. An isometric ball component having an isometric articular surface is mounted on the radial component. The humeral and radial components have stems for mounting in the medullary canals of the respective bones, which are angled so as to approximate the configuration of the original humerus and radius. The components work together to form a nonconstrained ball and socket joint. The invention is also directed to methods for implanting the novel endoprosthesis of the present invention in a canine elbow joint. The apparatus and methods of the present invention are useful in the treatment of elbow osteoarthritis in canines, as well as in other species, including other quadrupeds and humans.

20 Claims, 13 Drawing Sheets

